K. Davis

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#4
KFD
5-23-01

P.S

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RAW SEQUENCE LISTING DATE: 05/10/2001
PATENT APPLICATION: US/09/747,385 TIME: 08:37:52

Input Set : A:\Uc-998-1.app
Output Set: N:\CRF3\05102001\I747385.raw

<110> APPLICANT: Attarian, Gwynne
Podkaminer, Kara K.
Yoder, Sean C.
Kinder Haake, Susan A.
The Regents of the University of California
<120> TITLE OF INVENTION: Fusobacterium Nucleic Acids, Plasmids and Vectors
<130> FILE REFERENCE: 02307E-099810US
<140> CURRENT APPLICATION NUMBER: US 09/747,385
<141> CURRENT FILING DATE: 2000-12-22
<150> PRIOR APPLICATION NUMBER: US 60/173,168
<151> PRIOR FILING DATE: 1999-12-27
<160> NUMBER OF SEQ ID NOS: 21
<170> SOFTWARE: PatentIn Ver. 2.1
<210> SEQ ID NO: 1
<211> LENGTH: 407
<212> TYPE: PRT
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<220> FEATURE:
<223> OTHER INFORMATION: RepA
<400> SEQUENCE: 1

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His Ile Thr Asn Ile Thr Asn Lys Lys Ile Glu Thr Ile Phe Leu Phe
        35                  40                  45
Glu Lys Phe Ile Asn Asp Leu Asp Asn Asn Thr Leu Thr Ile Arg Val
    50                  55                  60
Thr Lys Asp Ser Leu Tyr Phe Phe Asn Ile Ala Asn Ser Tyr Leu Arg
65                  70                  75                  80
Phe Leu Phe Ser Asp Val Arg Lys Leu Ser Gly Lys Tyr Ser Lys Leu
                85                  90                  95
Leu Val Pro Tyr Leu Met Glu Phe Ser His Lys Lys Glu Ala Glu Phe
            100                 105                 110
Glu Lys Glu Arg Phe Phe Asn Ile Leu Glu Val Glu Glu Ser Tyr Arg
        115                 120                 125
Asn Asn Leu Ser Asp Phe Asn Lys Arg Ile Leu Lys Pro Ala Val Glu
    130                 135                 140
Glu Leu Lys Thr Leu Phe Glu Asn Leu Lys Val Glu Arg Leu Lys Asn
145                 150                 155                 160
Gly Arg Val Ile Lys Gly Tyr Lys Phe Ser Trp Thr Asn Asp Phe Asn
                165                 170                 175
Phe Gln Asn Lys Lys Asp Asn Ile Glu Glu Ala Glu Val Val Glu Glu
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Lys Glu Asn Ile Ala Ser Gly Glu Leu Glu Lys Tyr Phe Lys Ser Thr
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Phe Thr Asp Val Asn Tyr Ser Lys Lys His Lys Glu Val Leu Glu Lys
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74 Leu Leu Lys Asn Asn Ser Leu Glu Tyr Ile Lys Lys Tyr Leu Ser Glu
75 225                 230                 235                 240
77 Gln Trp Glu Tyr Val Gln Asn Asp Lys Asn Ile Leu Asn Lys Ser Ala
78                 245                 250                 255
80 Tyr Phe Ser Lys Leu Ile Leu Glu Glu Lys Ala Val Tyr Lys Asn His
81             260                 265                 270
83 Leu Pro Ala Asp Tyr Glu Glu Leu Lys Val Glu Glu Arg Asn Arg Asn
84         275                 280                 285
86 Ile Glu Ser Thr Asn Thr Ile Thr Ser Leu Lys Asp Leu Val Glu Lys
87     290                 295                 300
89 Asp Ile Thr Asp Tyr Glu Val Arg Lys Asn Ile Thr Pro Glu Gln Ile
90 305                 310                 315                 320
92 Glu Gln Glu Val Leu Phe Lys Ile Asp Val Thr Glu Glu Glu Tyr Asn
93                 325                 330                 335
95 Lys Ile Lys Glu Asp Trp Ile Ile Lys Arg Lys Asp Glu Val Pro Asn
96             340                 345                 350
98 Ser Asp Pro Lys Leu Leu Glu Ile Ile Phe Asn Ala Ser Gln Ser Lys
99         355                 360                 365
101 Lys Tyr Asn Ile Ile Asn Thr Lys Glu Glu Val Asn Glu Lys Glu Lys
102     370                 375                 380
104 Glu Leu His Glu Leu Glu Glu Asn Ile Lys Arg Met Gln Glu Glu Leu
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117 <223> OTHER INFORMATION: repA
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121 tatattttag gacttcatca aaaattagga aatttacata ttactaatat aacaaataaa 120
122 aaaattgaaa caatcttttt atttgaaaaa ttcataaatg atttagataa taatacttta 180
123 actataagag taacaaaaga ttctctttat ttttttaata ttgctaacag ttatttaagg 240
124 tttctctttt cagatgttag aaaactttca ggaaaatatt caaagttatt ggttccttat 300
125 ttaatggagt ttagtcataa aaaagaagct gaatttgaaa aagagagatt ttttaatatt 360
126 ctagaagttg aagaaagtta tagaaataat ttatcagatt ttaataagag aattctaaaa 420
127 ccagctgttg aagaattaaa aacacttttt gaaaatttaa aggttgagcg attaaaaaat 480
128 ggaagagtaa taaaaggata taaatttagc tggactaatg attttaattt tcaaaataag 540
129 aaagataata tagaagaagc agaagtagtg gaagaaaaag aaaatattgc ttcaggagag 600
130 ttagaaaaat attttaaatc aacttttact gatgtaaatt attcaaagaa gcataaagaa 660
131 gttttagaaa aattattaaa aaataatagt ttagaatata ttaaaaaata tttatctgag 720
132 cagtgggagt atgtacaaaa tgataaaaat attttaaata aatcagcata tttctcaaaa 780
133 ctaattttag aagaaaaagc agtatataaa aatcatctac cagctgacta tgaagaacta 840
134 aaagttgaag aaagaaatag aaatatagaa agtacaaata ctattacatc attaaaagat 900
135 ttagtagaaa aagacattac agattatgaa gttagaaaga atataactcc tgaacaaata 960
136 gaacaagaag ttttatttaa aatagatgta actgaagaag aatataataa gattaaagaa 1020
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PATENT APPLICATION: US/09/747,385 TIME: 08:37:52

Input Set : A:\Uc-998-1.app
Output Set: N:\CRF3\05102001\I747385.raw

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137 gattggataa taaaacgaaa agatgaagtt cctaatagtg atccaaaact tttagaaatt 1080
138 atatttaatg caagtcaatc aaaaaaatat aatataatta atactaaaga agaagttaat 1140
139 gaaaaagaaa aagagcttca cgaattagaa gaaaatataa aaagaatgca agaagaacta 1200
140 aataaattaa aaaaagaggt atag                                       1224
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148 <220> FEATURE:
149 <223> OTHER INFORMATION: Description of Artificial Sequence:iteron sequence
150       within the origin of replication of plasmid pFN1
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164       replication of plasmid pFN1
166 <400> SEQUENCE: 4
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169 caggacaaat tt                                                   132
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184 aaaattgaaa caatcttttt atttgaaaaa ttcataaatg atttagataa taatacttta 180
185 actataagag taacaaaaga ttctctttat ttttttaata ttgctaacag ttatttaagg 240
186 tttctctttt cagatgttag aaaactttca ggaaaatatt caaagttatt ggttccttat 300
187 ttaatggagt ttagtcataa aaaagaagct gaatttgaaa aagagagatt ttttaatatt 360
188 ctagaagttg aagaaagtta tagaaataat ttatcagatt ttaataagag aattctaaaa 420
189 ccagctgttg aagaattaaa aacacttttt gaaaatttaa aggttgagcg attaaaaaat 480
190 ggaagagtaa taaaaggata taaatttagc tggactaatg attttaattt tcaaaataag 540
191 aaagataata tagaagaagc agaagtagtg gaagaaaaag aaaataaaaa tattgctcct 600
192 ggagagttag aaaaatattt taaaacaact ttccctggtg taaattattc aaagaagcat 660
193 aaagaagttt tagaaaaatt attaaaaaat aatagtttag aatatattaa aaaatattta 720
194 tctgagcagt gggagtatgt acaaaacgat aaaaatattt taaataaatc agcatatttt 780
195 tcaaaactaa tcttagaaga aaaagcagta tataaaaatc atctaccagc tgactatgaa 840
196 gaattaaaag ttgaagaaag aaatagaaat atagaaagta caaatactat tacatcatta 900
197 aaagatttag tagaaaaaga cattacagat tatgaattta gaaagaatat aactcctgaa 960
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PATENT APPLICATION: US/09/747,385 TIME: 08:37:52

Input Set : A:\Uc-998-1.app
Output Set: N:\CRF3\05102001\I747385.raw

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199 aaagaagatt ggataataaa acaaaaagaa gtagttccta atagtgatcc agaactttta 1080
200 gaagttatat ttaatgcaag tcaatcaaaa aaatataata taattaatac taaagaagaa 1140
201 gttaatgaaa aagaaaaaga gcttcacgaa ttagaagaaa atataaaaag aatgcaagaa 1200
202 gaaataaata aattaaaaaa agaggtatag 1230
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206 <211> LENGTH: 5887
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial Sequence
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216 tttttttagt agcttccata catatcacac tccagcatta ttatttataa aaatataatt 180
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223 agattaataa taatgattaa atttacatta agattaacgg aagatgaaaa aaaactttta 600
224 gatataaaag ctgatgaatt aggtaaatca aaaaatgaag ttttaaagtt tcttataaac 660
225 aataaattgg aagatactaa aaaagaattt gacctattaa atgagcttga taaaaattat 720
226 aaagagctag gttttcagat taaaaaaatt ggagtagttt taaatcagat taataaaaat 780
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244 aagaaaaatt gaaaaagcaa aaagaagaaa ttgagaaaaa gaaaaattta aatagaaaca 1860
245 aaggtttcgg aataggagat taaaaatggc tatattagat gatgatgtaa atgaagttaa 1920
246 aaatgtgaat gagcaagaaa taaaaatgga tagttatatt aaaaaaataa ttgaaaatgt 1980
247 tttagaagtt cagctaaaag aacataaaga aatagcttcc attgctaaaa ctaaaatagc 2040
248 tgaagtaact ttagaactag aaaaattaaa acagctggag aaagcaacta ctaaatatag 2100
249 agatgataca aatataatta caaataaaat gattgaaaat gttgaaaatt ataataaagt 2160
250 atttttagaa agaattgata aatttaattt attgatggta gaaaagttaa atgaagtaaa 2220

RAW SEQUENCE LISTING DATE: 05/10/2001
PATENT APPLICATION: US/09/747,385 TIME: 08:37:52

Input Set : A:\Uc-998-1.app
Output Set: N:\CRF3\05102001\I747385.raw

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265 cttacacttt cagtaacttc ttcttcaggc ttcacaaaat cttttaaagt ttcatcaaca 3120
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278 gcagttatat taatatggtt tcacattatc acaagtttat tagcatagtt cttgtaaaaa 3900
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PYI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY DATE: 05/10/2001
PATENT APPLICATION: US/09/747,385 TIME: 08:37:54

Input Set : A:\Uc-998-1.app
Output Set: N:\CRF3\05102001\I747385.raw

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L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
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L:434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14